

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-12 are pending in this application. Claim 1 is independent. The remaining claims depend, directly or indirectly, from claim 1.

Objections

The abstract of the disclosure has been objected to because of legal phraseology. The abstract has been replaced. Thus, this rejection is now moot. Accordingly, Applicant respectfully request withdrawal of the objection.

Claims 4-12 has been objected, based on 37 CFR 1.75(c), due to multiple dependency from multiple dependent claims. Claims 4-12 have been amended removing any such multiple dependencies. No amendments have been made to overcome the prior art. Thus, this rejection is now moot. Accordingly, Applicant respectfully requests the withdrawal of the objection.

Rejection under 35 U.S.C. § 102

Claims 1-3 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Beutel (U.S. Patent No. 4,109,312). This rejection is respectfully traversed.

As recited in claim 1, in accordance with an embodiment of the invention, an integrated circuit device has a memory area comprising a data memory. The data memory has at least one counter element, at least one indicator element and at least one threshold value. The counter element counts the number of occurrences of events. Once the number of events reaches the threshold value, the indicator element goes from a first stage to a second stage.

In contrast, Beutel discloses a circuit arrangement to convert an analog value into a digital value and to store this digital value in a memory for display by means of an indicator unit. For this purpose, the circuit arrangement comprises a distributor circuit (21) arranged to select among a plurality of analog values. The circuit arrangement further comprises, for conversion of the analog signals, an A/D converter including integrator means (22), a clock signal generator (26), a counter (24), a comparator (25) and a control device (23) (col. 6, lines 13-25). Additionally, the circuit arrangement further includes, for displaying the digital value, a memory storage (30a), a drive circuit device (31a) and an indicator unit (32a).

In Beutel, the measured analog values are supplied to the input of the distributor circuit (21) and integrated via the integrated circuit (22). The duration of the integration of the input signal is determined by the clock pulse generator (26), which controls the counter (24) through the control device (23) (col. 6, line 26-50). When the counter reaches a specific count, an overflow signal is signified and the integration is stopped (col. 6, lines 50-61). The counter is reset to a starting position and a constant voltage is supplied to the integrator (22). Then, the voltage changes in the integrator (22) in the opposite direction as compared to the rise when the analog value was supplied. The integration time is ascertained by counting the pulses from the clock signal generator (26). Thus, the integration time represents a digital value for the analog value (col. 7, lines 9-10). The count reached by the counter (24) is supplied to the control circuit (23). The control circuit (23) in turn supplies the value to a digital memory storage (30a) (col. 7, lines 22-23). The value stored in the memory (30a) is then supplied to a drive circuit (31a), which energizes a seven segment display in the indicator unit (32a).

Therefore, Beutel does not disclose the invention as recited in claim 1. Beutel discloses a circuit arrangement comprising various components rather than a single integrated circuit device as recited in claim 1. In addition, Beutel fails to disclose that the memory (30a) has at least one counter (24). As described above, Beutel discloses a circuit arrangement including several distinct components, namely an A/D converter, memory (30a), and indicator unit (32a). Beutel describes an A/D converter that includes a counter (24) (see column 6, lines

13-25), and accordingly could not be included in the memory (30a). Furthermore, according to Beutel, the memory (30a) could not include a counter (24) because the counter (24) actually supplies a count to the memory (30a) (see column 7 lines 22 to 27). Beutel's use of the phrase "supplies to" in combination with the depiction of the counter (24) as a separate block outside the memory (30a) in Figure 1, clearly indicates that the counter (24) is located outside the memory (30a).

As recited in claim 1 of the invention, the counter element counts at least one number of events occurring within the integrated circuit device. When the count has reached a predetermined (and constant) threshold value, the indicator is designed to go from a first stage to a second stage. Accordingly, the invention provides a forgery safe integrated circuit device, in which the number of actions that can be performed on the integrated circuit device is restricted to a pre-determined number. This impedes forgers from performing any number of actions on the integrated circuit device in order to access confidential information contained in the integrated circuit device.

In contrast, Beutel discloses an indicator unit that is designed to go from a first state to a second state when the counter reaches a non-predetermined (or variable) threshold value, which depends on the analog value inputted to the circuit. This input event occurs outside the circuit arrangement in distinct contrast to the claimed invention. Furthermore, the claimed invention includes a threshold value that does not vary with respect to the signal inputted to the integrated device.


In view of the discussion above, Beutel fails to show or suggest all the limitations of the present invention as recited in independent claim 1. Thus, claim 1 is patentable over Beutel. Dependent claims 2-12 depend from claim 1 and, therefore, are allowable for at least the same reasons. Accordingly, withdrawal of the 102(b) rejection is respectfully requested.

CONCLUSION

Applicant believes this reply to be responsive to all outstanding issues and place this application in condition for allowance. If this belief is incorrect, or other issues arise, do not hesitate to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number: 09669/002001).

Respectfully submitted,

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